National Institute of Environmental Health Sciences

Emotions, trust, and perceived risk: A+E4316ffective and cognitive routes to flood preparedness behavior

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Abstract:

Despite the prognoses of the effects of global warming (e.g., rising sea levels, increasing river discharges), few international studies have addressed how flood preparedness should be stimulated among private citizens. This article aims to predict Dutch citizens' flood preparedness intentions by testing a path model, including previous flood hazard experiences, trust in public flood protection, and flood risk perceptions (both affective and cognitive components). Data were collected through questionnaire surveys in two coastal communities (nEuro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin) 169, nEuro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin) 244) and in one river area community (nEuro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin) 658). Causal relations were tested by means of structural equation modeling (SEM). Overall, the results indicate that both cognitive and affective mechanisms influence citizens' preparedness intentions. First, a higher level of trust reduces citizens' perceptions of flood likelihood, which in turn hampers their flood preparedness intentions (cognitive route). Second, trust also lessens the amount of dread evoked by flood risk, which in turn impedes flood preparedness intentions (affective route). Moreover, the affective route showed that levels of dread were especially influenced by citizens' negative and positive emotions related to their previous flood hazard experiences. Negative emotions most often reflected fear and powerlessness, while positive emotions most frequently reflected feelings of solidarity. The results are consistent with the affect heuristic and the historical context of Dutch flood risk management. The great challenge for flood risk management is the accommodation of both cognitive and affective mechanisms in risk communications, especially when most people lack an emotional basis stemming from previous flood hazard events.

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Resource Description

Communication: ☑

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ☑

audience to whom the resource is directed

Public

Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event

Extreme Weather Event: Flooding

Geographic Feature:

resource focuses on specific type of geography

Ocean/Coastal

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Europe

European Region/Country: European Country

Other European Country : Netherlands

Health Impact:

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Other Vulnerable Population: Residents of a flood hazard area

Resource Type:

format or standard characteristic of resource

Research Article

Resilience:

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

Timescale:

time period studied

Time Scale Unspecified